

WHAT IS CLAIMED IS:

1        1.        A color image forming apparatus, comprising:  
2                a plurality of image carriers for at least one color;  
3                a plurality of developing devices, each developing a toner image onto  
4 each image carrier;  
5                a plurality of charging devices, each charging the each image carrier;  
6                a first power source, connected to the developing devices in common;  
7                a second power source, connected to the charging devices in  
8 common; and  
9                a controller, changing a process control of at least one of the charging  
10 devices and the developing devices in accordance with a color image forming  
11 operation and a monochrome image forming operation.

1        2.        The color image forming apparatus as set forth in claim 1, wherein the  
2 first power source includes a variable voltage DC power source and a variable  
3 frequency AC power source.

1        3.        The color image forming apparatus as set forth in claim 1, wherein the  
2 second power source includes a variable voltage DC power source and a  
3 variable voltage AC power source.

1        4.        The color image forming apparatus as set forth in claim 1, wherein  
2 each charging device includes either a roller charging mechanism or a brush  
3 charging mechanism; and

4            wherein each developing device includes either a contact developing  
5 mechanism or a non-contact developing mechanism.

1        5.        The color image forming apparatus as set forth in claim 1, wherein  
2 each charging device includes a roller charging mechanism; and  
3            wherein each developing device includes a contact developing  
4 mechanism.

1        6.        The color image forming apparatus as set forth in claim 1, wherein  
2 each charging device includes a brush charging mechanism; and  
3            wherein each developing device includes a non-contact developing  
4 mechanism.

1        7.        The color image forming apparatus as set forth in claim 1, wherein the  
2 process control includes at least one of a control of a charging bias voltage for  
3 applying the charging devices and a control of a developing bias voltage for  
4 applying the developing devices.

1        8.        The color image forming apparatus as set forth in claim 7, wherein the  
2 charging bias voltage includes either a DC voltage to be singly applied or an  
3 alternating voltage superposed with the DC voltage.

1        9.        The color image forming apparatus as set forth in claim 7, wherein the  
2 developing bias voltage includes either a DC voltage to be singly applied or an  
3 alternating voltage superposed with the DC voltage.

1     10.     The color image forming apparatus as set forth in claim 7, wherein the  
2     controller changes the control of the charging bias voltage so as to set a  
3     voltage in the monochrome image forming operation higher than a voltage in  
4     the color image forming operation.

1     11.     The color image forming apparatus as set forth in claim 7, wherein the  
2     controller changes the control of the developing bias voltage so as to set a  
3     frequency of an alternating voltage in the monochrome image forming operation  
4     higher than a frequency of an alternating voltage in the color  
5     monochrome image forming operation.